



## Managing acute post-operative pain: Advances, challenges and constraints

Existence of pain is as old as that of humankind. Ever since the beginning of surgical practice, pain has followed surgeons and anaesthesiologists like an inseparable shadow. In spite of our advanced knowledge about pain and pain-relieving practices, it has made an indelible mark and an irreversible penetration into the human psyche, be it that of the patient or the pain physician.

Pain physicians of late have opened a larger front to confront the menace of pain, with the availability of newer pain-relieving drugs, equipment and techniques, as well as the formation of pain societies and associations. There is a burgeoning of pain centres and pain management workshops, and greater awareness through pain journals about the existing gap in our knowledge related to pain-relieving practices. India has undergone a drastic transformation over the last three decades, and considerable progress has been made in anaesthesia and pain management. The question still remains: Why is pain still troubling the pain physicians in spite of the many advances in pain medicine? The answer to such a question can be quite daunting considering the various clinical, psychological, biosocial, cultural and economic factors.

The first and foremost is the failure to adopt universal practices. The pain-relieving practices in our nation follow the diversity similar to our cultural, regional and religious practices. These gaps are further widened as different specialities follow varied practices in the same institute, leave alone differences between cities and states. These diversities, on the contrary, somehow do help in generation of interest among pain physicians and a quest for more advancement in this field.

Although lot of research has been done on molecular mechanisms of pain and pain pathways, the

heterogeneity of pain-relieving practices further adds to the poor management of post-operative pain.<sup>[1]</sup> The poor pain management practices can be potential causes of prolonged hospital stay, gross dissatisfaction among patients, disability in routine life, psychological breakdown, financial and social burden and many more ill effects.<sup>[2,3]</sup> Onset of chronic pain can also be partly blamed on poor management of acute post-operative pain.

Any patient treated for a surgical procedure has a basic human right to be free of any pain or discomfort. However, such basic rights take a back seat in the backdrop of economical and financial circumstances in resource-challenged nations. The decision-making in such circumstances is often subjective, bypassing the evidence-based protocols.<sup>[4]</sup>

The recent post-caesarean analgesia strategies have been well described in one of the review articles being published in this issue of Indian Journal of Anaesthesia (IJA).<sup>[5]</sup> However, the application of such techniques, methodologies and drugs for post-caesarean analgesia will only be successful if acute pain services (APS) get uniformly improved as most of these operative deliveries are conducted in hospitals with mediocre facilities and in peripheral health units. There are so many national programs which encourage the antenatal patients to undergo deliveries and operations in hospitals. However, post-operative analgesia is not adequately emphasised in the objectives of these programs, which can possibly cause a greater dissatisfaction among patients.

The route of administration of analgesics during the post-operative period is another major issue of contention. A study comparing transdermal buprenorphine with oral tramadol for relief of

post-operative pain is being published in this issue.<sup>[6]</sup> The role of transdermal buprenorphine in relieving post-operative pain can be well appreciated over oral tramadol. The former releases sustained drug molecules into plasma and thus does not lead to peaks and troughs causing intermittent painful periods that occur with fixed duration, intermittent dosing of oral opioids. Such indirect comparisons may sound scientifically and statistically weak, but in clinical practice, such studies do have a larger impact on day-to-day pain-relieving practices. A major landmark Cochrane review of over 350 clinical trials examined the experience of 45,000 patients who underwent a single oral post-operative analgesic intervention.<sup>[7]</sup> The overview established certain basic facts which include but are not limited to lack of high quality effectiveness of commonly used analgesics, rare use and unavailability of stronger analgesics, the variable effectiveness of analgesics in different surgical conditions and a suggestion to include failure of analgesia also as a part of the clinical outcome of any trial.<sup>[7]</sup>

The most dynamic aspects of pain-relieving practices are the rapidly evolving newer strategies that somehow dilute the effectiveness of existing guidelines and thus create a need for their modification to keep pace with the advancements. This also helps in getting pain medicine diversified as newer drugs, techniques and strategies keep getting evolved. This sometimes proves challenging in laying foundation for newer evidence-based guidelines.

This issue of the IJA also carries the results of a major survey study related to current practices of post-operative pain management in tertiary care institutes in the state of Maharashtra.<sup>[8]</sup> The results of the study have shown that bulk of workload in post-operative pain-relieving practices is carried out by surgeons, whereas anaesthesiologists are mainly involved in the early recovery period and/or post-anaesthesia care unit. The survey has thrown light on a very critical issue, that is, the role of anaesthesiologists in post-operative wards and the strong need for follow-up and post-operative rounds for every surgical procedure. The credit anaesthesiologists are getting in leading pain medicine speciality is somehow diluted by not extending their services into post-operative period uniformly.<sup>[9]</sup> At present, post-operative services are mainly confined to patients who are part of the research plans and studies or where institute-based pain-relieving protocols are meticulously followed.

No medical or surgical speciality can progress unless and until it comprehensively takes care of clinical, scientific, behavioural, attitudinal, cultural, fiscal and psychological aspects associated with it. The future of pain medicine will become much brighter if we take into consideration all the laggards also in the management of post-operative pain into our armamentarium. Maharashtra is considered to be one of the best states in India in delivering quality health care services in tertiary care institutes. Going by the findings of this survey study, the plight of APS in the entire nation, especially in the peripheral health sector can well be imagined.<sup>[8]</sup>

The greatest imbalance that we see today is that in spite of so many achievements in pain-relieving strategies, patient care has not progressed in parallel to the same level. The higher incidence of complications, such as myocardial infarction, arrhythmias, pneumonitis and prolonged hospital stay, can occur when pain is poorly relieved.<sup>[10]</sup> The concise and updated knowledge of pain-relieving practices should be disseminated widely across the nation so as to bring down morbidity and mortality associated with poor management of pain. Inadequate treatment of pain is not only unethical but also shows that our advanced knowledge and research in pain-relieving field is not satisfactory.

For improving APS, there is a strong need for application of existing evidence-based guidelines in a modified form. These modifications should take into consideration our limited resources and behavioural and cultural practices so as to improve the pain index in our nation. The medical fraternity needs to be updated regularly about various aspects of pain, including surgical and non-surgical pain, so as to deal with this menace more precisely and effectively. The best solution in developing nations seems to be combining the evidence-based guidelines with expert clinical practices in different resource-challenged circumstances. This may seem to be a herculean task but with the presence of so many associations and pain societies this can definitely become possible.

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